

## DETERMINING SIGNAL TRANSDUCTION PATHWAYS

### ABSTRACT

5 Experimental and analytical methods enable reconstruction of signal transduction networks from gene expression profiles. Signal transduction pathways can be reverse-engineered by 1) experimentally manipulating individual genes, 2) generating cellular expression profiles, and 3) analyzing for common patterns among these profiles. Analysis of patterns among profiles permits reconstruction of pathways and networks of interrelationships among genes and their products.